

VISIONXS-CPU-F(M)-DP-HR-DH-U-DT 2.0

KVM extenders, Article number A1110812



The matrix-compatible KVM extenders of the VisionXS-DP-HR 2.0 series extend keyboard, video, and mouse signals, as well as other peripheral data (e.g., audio and USB), via a dedicated CAT or fiber connection (up to 5,000 m – optionally extendable). An extender system consists of a computer module (CPU) and a compatible console module (CON). Computers can be controlled in near real-time – both in extender and matrix applications. The VisionXS-DP-HR 2.0 series supports DisplayPort 1.1 for high-resolution video up to 2560 x 1600 (60 Hz) or 4096 x 2160 (30 Hz). Video data is processed pixel-perfectly and offers excellent hand-eye coordination, thanks to bluedec™ – G&D's advanced, multi-stage, lossless compression technology.

SCOPE OF DELIVERY

| Quantity | Description | Article number |
|----------|---|----------------|
| 1 | PowerCable-2 Standard cable 2m | A6300057 |
| 2 | DP1.4-Cable-M/M-2 SK13357 2m | A6300173 |
| 1 | TypeC-Service-Cable-M/M-2, 2m, USB Type-A / Type-C | A6200112 |
| 1 | RS232-M/F-2 cable RS232 2m | A6300023 |
| 2 | Audio-M/M-2-ferrite cable 2m | A6300083 |
| 1 | Audio adapter cable, 1x 3.5mm jack plug to 2x 3.5mm jack socket | A3110017 |
| 1 | Safety instructions flyer - FCC class B | A9100371 |

DETAILS

VIDEO

- bluedec™ – advanced developed multi-stage compression for best video quality and practically latency-free transmission. This method enables pixel-perfect video transmission with efficient bandwidth use.
- The end devices can be flexibly combined with each other, even if they process different video signals (Mix & Match)
- EDID data utilization from the workplace monitor
- Flexible EDID profile options for optimized monitor settings
- Resolution up to
2560 × 1600 @ 60 Hz,
4096 × 2160 @ 30 Hz

SIGNALS

- Embedded stereo audio (DisplayPort Digital, 2 channel LPCM, AC3, DTS, sampling rate up to 192 kHz)
- Transparent bidirectional audio signals (stereo)
- Transparent RS232 (max. 115,200 bps)
- GenericUSB support for USB classes HID (Human Interface Device), SmartCard and mass storage
- The product allows the use of a GenericUSB device via a console module. For this, both the used console module and the used computer module must support the use of a GenericUSB device.
- Embedded USB 2.0 with Full Speed, transparent, all USB classes

TRANSMISSION

- The transmission distance is up to 400 meters over fiber multimode optics, incl. transmission module(s)/SFP transceiver(s)

DEVICE

- Improved security through physical separation between workplaces and computers
- Access to standard interfaces of the computer, with no software installation required
- New enclosure design with improved cooling, optimized interface placement, and robust surface finishing – for higher reliability and long service life even in demanding environments
- Compact design for space-saving installation within a VisionXS 2.0 DeviceCarrier (1 or 3 RU)
- The devices are compatible with the ControlCenter-Digital and ControlCenter-Compact series (matrix operation) and other end devices for computer and workplace connections (extender operation)
- PowerPack not included in the scope of delivery
- DT variant:

- Power supply via internal power supply unit
- In combination with an external power supply, a redundant power supply can be established
- RS232 is provided as standard
- 2C/2F variant (comparable to UC/CON-2): Two transmission paths (CAT or Fiber) for redundancy
 - Computer modules can connect to various counterparts, such as compatible console modules or KVM matrix switches
 - Console modules can connect to different counterparts, such as compatible computer modules or KVM matrix switches, with switching controlled via hotkey or automatically depending on configuration
 - 2C/2F variants are never available with U2, since the second transmission interface is used for transmitting USB 2.0 data.
- Extended USB input side with TypeC and separate USB K/M interface – enables the optional physical separation of keyboard/mouse signals and USB data stream for enhanced security.

WARRANTY

- A 3-year, free of charge product guarantee
- For an additional fee guarantee extension possible

FEATURES

SECURITY FEATURES

- Bootloader, operating system, and firmware form a "Trusted Computing Platform" with automatic integrity checks during system startup
- Integrated Trusted Platform Module (TPM) protects all access and configuration data from being spied on or tampered with by third parties
- Console modules do not store security-relevant information such as login credentials, which could be extracted in the event of device loss
- Early detection of security incidents or unusual activities through continuous monitoring via Syslog, monitoring, and SNMP
- Comprehensive rights management and user administration, allowing precise control over which user can access which resources
- Option for activatable access protection (default operating mode in matrix systems), in which authentication is required before accessing computer sources
- Support for external directory services (Active Directory, Radius, LDAP) to meet company security policies
- To comply with individual password policies and improve security, password complexity can be configured system-wide
- Configurable login options, such as displaying terms of use or setting the maximum acceptable number of failed login attempts, can enhance system security
- Auto Backup Function: Automates backups at user-defined intervals and replaces manual intervention – ensuring reliable, timely data protection without the need for continuous monitoring
- Freeze function: If the video signal is lost, the last displayed image is frozen and highlighted with a colored frame and timer
- 2-Factor-Authentication (2FA) – is integrated by default in KVM extenders and enhances security by requiring a second, possession-based factor during user authentication:
 - The traditional password authentication is combined with a time-limited, single-use code (Time-Based-One-Time-Password - TOTP)
 - You can choose between using the internal authentication server provided in the device or an external directory service
 - Authenticator apps or hardware token can be used
 - This additional layer of protection prevents unauthorized access and ensures the highest level of security, particularly in sensitive IT environments

OPERATION FEATURES

- Ready for operation out of the box, no additional configuration required
- Permanent keyboard/mouse emulation ensures a stable system
- Compatibility with special USB-HID input devices

- Operation via multilingual on-screen display (OSD) and hotkeys
- Configuration and update via the multilingual HTML5 web interface “Config Panel 21” (Java-free)
- Support of DDC/CI (Display Data Channel / Command Interface) to enable centralized software-side control of monitor settings such as brightness

EXTENSIONS

DEVICE

- External power supply via an external USB Type-C PD power pack or via the G&D MultiPower-12-TypeC, which ensures centralized and redundant power supply.
- Device mounting via RackMount sets, TableMount sets, G&D 19” DeviceCarrier for VisionXS 2.0 or other mounting tools

SYSTEM EXTENSION

- You can integrate the matrix-compatible extenders into a complete installation with a ControlCenter-Compact or ControlCenter-Digital, even at a later point in time. This provides you with even greater flexibility through the possibility of distributed access – and the existing components can continue to be used.

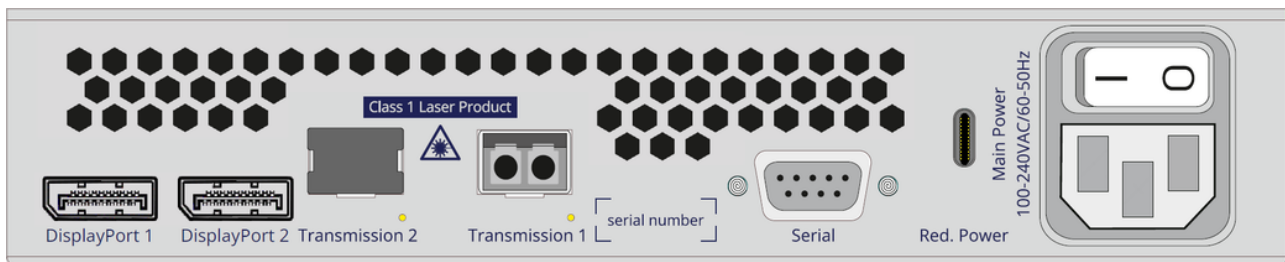
PANELS AND CONNECTORS

FRONT



| Aperture designation | Design | Description |
|----------------------|------------------|--|
| Service | USB-C socket | Connection for service purpose |
| Network | RJ45 socket | Port for IP network |
| Audio | 3,5-mm jack plug | Connection to computer - Audio |
| USB | USB-C socket | Connection to computer - USB |
| K/M only | USB-C socket | Optional connection to computer - USB, only for keyboard and mouse signals |

BACK



| Aperture designation | Design | Description |
|----------------------|--------------------|--|
| DisplayPort 1 | DisplayPort socket | Connection to computer - Video |
| DisplayPort 2 | DisplayPort socket | Connection to computer - Video |
| Transmission 1 | LC Duplex socket | Data transmission to console module or matrix switch (FIBER) |
| Serial | D-Sub 9 socket | Connection to computer - serial data |
| Red. Power | USB-C socket | Power supply USB-PD (Power Delivery) redundant |
| Main Power | IEC plug 320 C14 | Power supply AC |

SCHEMATIC REPRESENTATION

Dedicated extender operation



Dedicated matrix operation



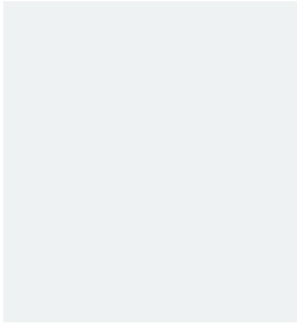
TECHNICAL DATA

| | | |
|----------------------|---------------------------------|--|
| General | Product group | KVM extenders |
| | Product Family | VisionXS 2.0 |
| | KVM matrix system component | Computer module (digital) |
| Transmission | Number of transmission channels | 1 |
| | Redundant transmission channels | no redundant KVM transmission |
| | Range | 100 m (62.5/125µm) 200 m (50.0/125µm, OM2) 400 m (50.0/125µm, OM3) 70 m (62.5/125µm) 150 m (50.0/125µm) 400 m (50.0/125µm, OM4 - 4700MHz*km) |
| | Laser class | Class 1 |
| | Type of interface | LC-Duplex |
| | Wavelength | 850 nm |
| | Medium | Fiber MM |
| | Data rate | 2.5 Gbit/s |
| | Video input | Quantity |
| Format | | DisplayPort 1.1 (HBR) |
| Colour depth | | 24 bit |
| Pixel rate ca. | | 25 MPixel/s to 300 MPixel/s |
| Vertical frequency | | 24 Hz to 120 Hz |
| Horizontal frequency | | 25 kHz to 185 kHz |

| | | |
|---------|------------------------------|--|
| | Exemplary resolutions | 4096 × 2160 (30 Hz) 4096 × 2160 (25 Hz) 4096 × 2160 (24 Hz) 3840 × 2160 (30 Hz) 3840 × 2160 (25 Hz) 3840 × 2160 (24 Hz) 2560 × 1600 (60 Hz) 2048 × 2048 (60 Hz) 1920 × 1200 (60 Hz) 1920 × 1080 (60 Hz) |
| | General Notes | Further VESA and CTA standardised resolutions possible within pixel rate and horizontal/vertical frequency. |
| | Supported industry standards | Display Data Channel Command Interface (DDC/CI) Extended Display Identification Data (EDID) |
| Audio 1 | Transmission type | 2-channel LPCM Stereo DTS AC3 |
| | Resolutions | 24 bit 20 bit 16 bit |
| | Sampling rate | up to 192 kHz |
| | Audio support | Digital Embedded |
| Audio 2 | Transmission type | Stereo Transparent Bidirectional |
| | Resolutions | 24 bit digital |
| | Sampling rate | up to 96 kHz |
| | Bandwidth | 22 kHz |

| | | |
|---------|--------------------------------|---|
| | Audio support | Analog |
| USB 1 | Separate USB transmission port | no |
| | Specification | USB 2.0 |
| | GenericUSB support | 1 device |
| | Medium | Embedded |
| | Transmission rate | max. 25 Mbit/s (Full Speed) |
| | USB classes | Mass Storage (MSC / UMS) Human Interface Device (HID) SmartCard |
| | Specification | USB 2.0 |
| USB 2 | Medium | Embedded |
| | Transmission rate | max. 16 Mbit/s (app. Full Speed) |
| | Range | max. 400 m |
| | USB classes | All |
| | Standard | RS232 |
| Serial | Transparent transmission | yes |
| | Data rate | 115,200 bps |
| | Signals | TxD RxD RTS CTS GND 5V |
| | Quantity | 1 |
| Network | | |

| | | |
|----------------------|--|----------------------------|
| | Medium | CAT5 CAT6 CAT7 |
| | Data rate | 10 Mbit/s 100 Mbit/s |
| Maintenance | Update via | ConfigPanel (Network) |
| | Serviceport settings | 115200bps (8/N/1) |
| Housing | Material | Sheet steel, powder-coated |
| | Width ca. | 215 mm |
| | Height ca. | 44 mm |
| | Depth ca. | 222 mm |
| | IP protection class | IP20 |
| Operating conditions | Operating environment temperature | 5 °C to 45 °C |
| | Operating air humidity, non-condensing | 20 % to 80 % |
| | Area of application | Indoor use |
| | Maximum operating altitude above sea level | 3,048 m |
| | Storage environment temperature | -20 °C to 60 °C |
| | Storage air humidity, non-condensing | 15 % to 85 % |
| | MTBF | 200,000 h at 25°C |



Conformities

RoHS compliant (see downloads)
REACH compliant (see downloads)
FCC compliant (see manual)
CE compliant (see downloads)
UKCA compliant (see downloads)
TAA compliant (see downloads)
WEEE (reg. no. DE30763240)

MORE VARIANTS

| Description | Article number |
|--|----------------|
| VisionXS-CPU-2F(M)-DP-HR 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110880 |
| VisionXS-CPU-2F(M)-DP-HR-DH 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110840 |
| VisionXS-CPU-2F(M)-DP-HR-DH-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110832 |
| VisionXS-CPU-2F(M)-DP-HR-DH-U 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110816 |
| VisionXS-CPU-2F(M)-DP-HR-DH-U-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110808 |
| VisionXS-CPU-2F(M)-DP-HR-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110872 |
| VisionXS-CPU-2F(M)-DP-HR-U 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110856 |
| VisionXS-CPU-2F(M)-DP-HR-U-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110848 |
| VisionXS-CPU-F(M)-DP-HR 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110884 |
| VisionXS-CPU-F(M)-DP-HR-DH 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110844 |
| VisionXS-CPU-F(M)-DP-HR-DH-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110836 |
| VisionXS-CPU-F(M)-DP-HR-DH-U 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110820 |
| VisionXS-CPU-F(M)-DP-HR-DH-U2 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110828 |

| Description | Article number |
|--|----------------|
| VisionXS-CPU-F(M)-DP-HR-DH-U2-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110824 |
| VisionXS-CPU-F(M)-DP-HR-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110876 |
| VisionXS-CPU-F(M)-DP-HR-U 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110860 |
| VisionXS-CPU-F(M)-DP-HR-U-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110852 |
| VisionXS-CPU-F(M)-DP-HR-U2 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110868 |
| VisionXS-CPU-F(M)-DP-HR-U2-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110864 |

CONTACT

WE ARE HERE FOR YOU!

If you have any further questions, we are looking forward to advising you on your individual project requirements.

TECHNICAL SALES

Tel.: +1-833-928-1976
Fax: +1-833-928-1976
E-Mail: sales.us@gdsys.com

HEADQUARTERS

Guntermann & Drunck GmbH Systementwicklung
Obere Leimbach 9 | 57074 Siegen | NRW |
Deutschland

Tel.: +49 271 23872-0
Fax: +49 271 23872-120
E-Mail: sales@gdsys.com

US OFFICE

G&D North America Inc.
4540 Kendrick Plaza Drive | Suite 100
Houston, TX 77032 | United States

Tel.: +1-346-620-4362
E-Mail: sales.us@gdsys.com

MIDDLE EAST OFFICE

Guntermann & Drunck GmbH
Dubai Studio City | DSC Tower
12th Floor, Office 1208 | Dubai, UAE

Tel.: +971 4 5586178
E-Mail: sales.me@gdsys.com

APAC OFFICE

Guntermann & Drunck GmbH
60 Anson Road #17-01
Singapore 079914

Tel.: +65 9685 8807
E-Mail: sales.apac@gdsys.com